The Development of Information Systems Planning Towards a Mature Management Tool

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Information systems planning has developed rapidly over the past decades. However, practical experience indicates we have yet to reach maturity. Many organizations have yet gained some experience with ISP. The evaluations available show a mixed picture. We seem to have reached a stage in which the development and implementation of ISP has lost momentum. Based on the practical results of earlier projects the concepts were improved, but despite the accumulated experience with ISP and the development and enhancement of methodologies for ISP, it is still a difficult task and gives rise to several problems. Therefore, practitioners of ISP are groping for new ways to incorporate IT assessment in the traditional ISP methodologies. In order to achieve a successful integration, a framework is presented, which serves as a new way of understanding the position of information systems planning within the business’ strategic planning process. Combined with guidelines for step-wise refinement, resulting in a natural cross-over into systems analysis and design, this framework is fundamental to making information systems planning a mature management tool.

A major consumer goods manufacturer started with information systems planning (ISP) in 1986, initiated by senior management on all levels. Since then, a lot of effort has been put into gaining knowledge and experience in this field. After an explorative stage, a formal methodology, namely IE (developed by James Martin, 1982), was adopted to support the ISP process. Now, four years later, management is evaluating the results with mixed feelings. Due to a low degree of experience in the beginning, they seem to have paid a lot of learning expenses. In several cases the projects finished gave only a detailed and merely technically oriented analysis. The embedding in the organization was not always successful. Furthermore, although the importance of ISP for the business was recognized, senior management still faced the following questions:

- When and where does ISP start to pay back in financial terms?
• How can we get in pace with new technological developments?

• Who will bring the pieces together into a really integrated approach?

The experiences and doubts, as described above, are representative for many major organizations these days. Therefore, the major subject within ISP for the coming years will be to find concepts, methods and techniques to transform ISP, in order to make it really beneficial with respect to the business objectives and goals.

Over the past few decades information systems planning has become an issue of major importance. Reasons for planning the future development of information systems include the need to integrate otherwise isolated information systems (reduce island-automation), the wish to align the information systems with organizational goals and structures, and the ambition of management to come to grips with expenditures on information systems and means of controlling the development process.

In order to achieve these objectives, in the 1970s both researchers and practitioners started to think about ISP. Since that time there has been a rapid development of concepts for ISP, partly based on practical projects and experiments. Methodologies to support the ISP process were developed, the desired deliverables were stipulated, and the place of ISP in the organization was discussed. The emergence of a methodological approach, as represented by Business Systems Planning and its derivates, was a major reason for many organizations to start ISP projects.

Since then, many organizations have gained some experience with ISP (Lederer and Sethi, 1988). The evaluations available show a mixed picture. Despite the accumulated experience with ISP and the development and enhancement of methodologies for ISP, it still proves to be a difficult task and gives rise to several problems (see e.g. Lederer and Mendelow, 1986 and Pyburn, 1983). Among the important problems are the relation between organization planning and ISP, the embedding of ISP in the organization, and the involvement of management. The current approaches are not sufficient to solve these problems. This indicates that it is time for managers to rethink their ISP processes.

In this article we will build upon current status and problems in ISP, based both on literature study and practical experience. After shortly introducing the concepts and terminology used, the next section gives a description of current ISP practice and shortcomings, by outlining the historical development of ISP. From this historical outline we will be able to derive the key variables that in our view influence the success of ISP, in answer to such problem issues as mentioned above. An analysis, then, of these key variables is given in the following section. From this analysis a new approach to ISP for the coming years will be derived, in order to make it a mature tool for organizations to achieve their business objectives and competitive advantage. The maturity of ISP is indicated by the degree in which ISP forms an integral part of deliberation and decision making processes within an organization. This new approach, in the form of a framework for ISP, is described, along with recommendations and guidelines for improving the application of ISP in organizations. Finally, we summarize the views presented in this article.

What is Information Systems Planning?

The field of ISP is a relatively new one and the rate of change in this field is rather high. Accordingly, the concepts and terminology used in the literature on the subject are not always defined unambiguously. Even though the term ISP has only been used for the last ten years, similar activities have been going on since well before that time. In our view these activities are also included in the concept of ISP as we use it. To guard against misunderstanding we will give a short outline of the basic concepts and definitions that underlie the rest of this article.

Information systems planning is used as a...